(No Model.)

# F. P. DARK.

## CAR COUPLING.

No. 506,583. Patented Oct. 10, 1893.

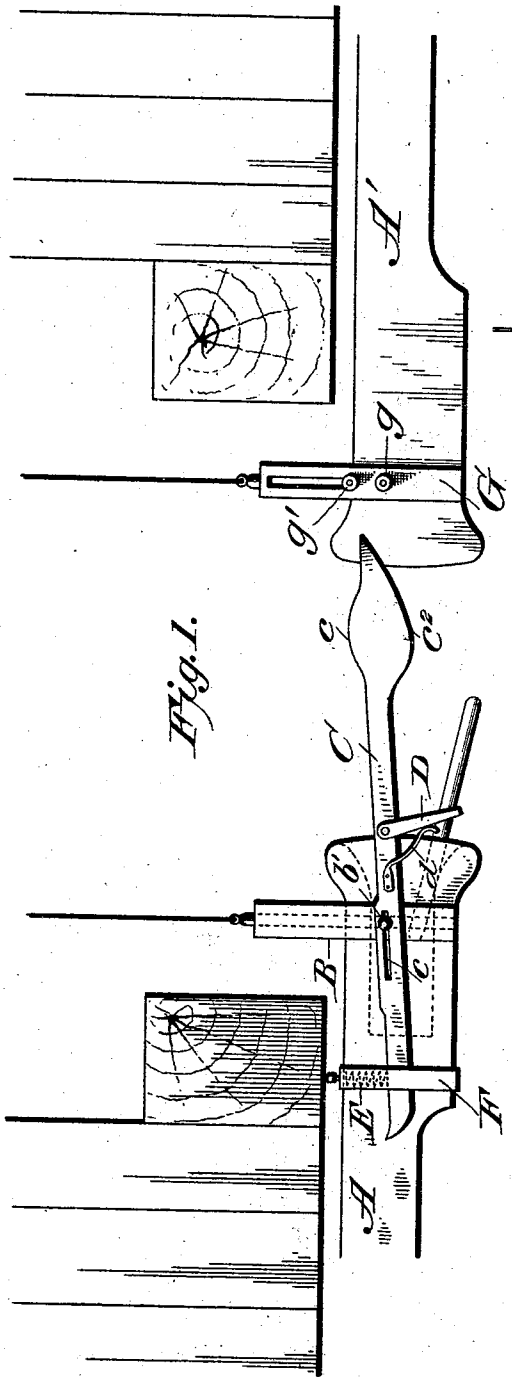


Fig. 1.

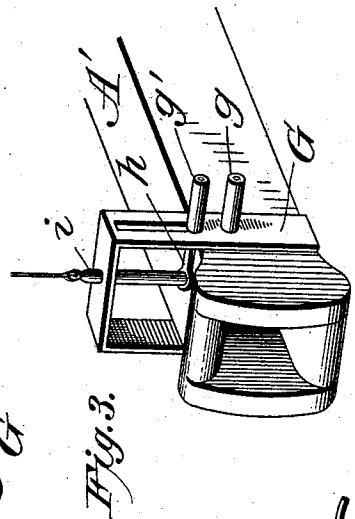


Fig. 3.

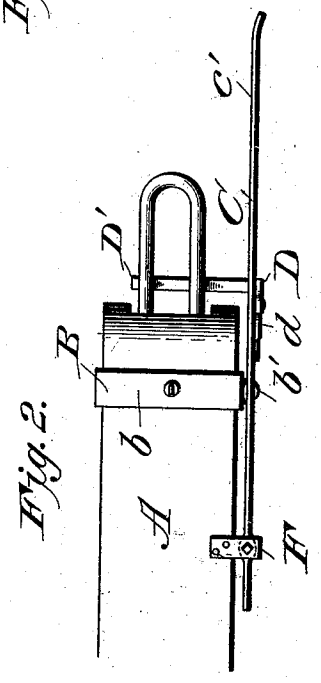


Fig. 2.

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# UNITED STATES PATENT OFFICE.

FRANCIS P. DARK, OF BARRY, ASSIGNOR OF ONE-HALF TO P. HENRY KISTNER, OF FAIRWEATHER, ILLINOIS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 506,583, dated October 10, 1893.

Application filed June 22, 1893. Serial No. 478,459. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS P. DARK, a citizen of the United States of America, residing at Barry, in the county of Pike and State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide an attachment for draw-heads of ordinary construction by means of which the link can be lifted to a horizontal position and the pin of the other draw-head elevated so that when the draw-heads come together they will be automatically coupled; and the invention consists in the construction and combination of the parts, as will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation showing my improvements applied, the draw-heads being in position for coupling. Fig. 2 is a plan view; and Fig. 3 is a perspective view.

A and A′ designate the draw-heads which are of ordinary construction and are attached to the cars in the usual manner. The draw-head A is provided with a band or frame B, which is secured thereto in any suitable manner, the upper transverse portion *b* of the frame having an aperture to receive and guide the coupling-pin. One of the vertical sides of the frame has an outwardly projecting pin *b′* upon which is pivoted a bar C, the pin passing through a slot *c* in said bar. Adjacent to the slot this bar has secured thereto a flat spring *d* which engages with a depending arm D pivoted to the bar in advance of the spring, said arm having an inwardly projecting portion D′ which engages with the link. The rear end of the bar, C, passes beneath a spring E attached to a bracket F which is secured to the draw-head. The forward end of the bar is pointed, and said point is bent outward as shown in Fig. 2, and rear of the point the upper and lower sides of the bar are extended to provide curved portions *c′* and $c^2$. The other draw-head, A′, has attached thereto a frame G from one side of which projects a spindle upon which is mounted a roller *g*, and above this roller the frame is provided with a slot through which passes a rod *h*, one end of said rod being attached to the coupling-pin while the part which projects beyond the frame has mounted thereon a roller *g′*. The coupling-pin of each draw-head may be provided with a rod or connection which extends to the top of the car so that the uncoupling can be done from that point.

When it is desired to position the parts for coupling the pin of the draw-head A is lowered to engage with the link and the part D′ of the pivoted arm D located under the link; now when a draw-head having the attachments shown in Fig. 3 moves toward the draw-head A the headed end of the bar C will pass between the rollers *g* and *g′*, and riding upon the roller *g* will elevate the link in position to enter the draw-head and at the same time lift the rod *h* which carries with it the coupling-pin, and when the head of the bar C has passed beyond the rollers the link will be in the draw-head and the pin carried by the rod *h* will be lowered to couple the cars.

By means of the construction hereinbefore described I not only provide means for automatically coupling the cars but also means for guiding the link into the draw-head.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car coupling, the combination, of the draw-heads A and A′ one of said draw-heads being provided with a frame which carries a bar C having an arm with an inwardly projecting portion which engages with the link, the other draw-head having a frame with rollers one of which is mounted on the rod connected to the coupling-pin, substantially as shown, and for the purpose set forth.

2. In a car coupling, the combination, of a draw-head A having frame B and bracket F, a bar C pivoted to the frame by a means of a pin which passes through a slot therein, a spring attached to the bracket F and adapted

to engage with the rear end of the bar, the forward end of the bar being pointed and provided with a head presenting curved portions $c'$ and $c^2$, the parts being adapted to co-act with a draw-head having a pin which carries an outwardly-projecting rod with which the head of the bar C is adapted to engage, substantially as shown, and for the purpose set forth.

3. In combination with the draw-heads A and A′, a frame B having pivotally attached thereto a bar C, the forward end of the bar being pointed and provided with a head as shown, a link-support D pivoted to the bar, and a spring adapted to engage with said link support, the draw-head A′ having a fixed roller $g$ and a vertically movable roller $g'$ carried by a rod which extends from the coupling-pin, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS P. DARK.

Witnesses:

CHARLES A. KENDALL,

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